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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,004	04/18/2001	William F. Hackett JR.	016021001010	8876

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EXAMINER

POLK, SHARON A

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/838,004

Applicant(s)

HACKETT, WILLIAM F.

Examiner

Sharon Polk

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on April 18, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the resistor coupled to the at least one transistor switch must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair, US 3,656,136 in view of Quantz, US 5,343,351.

With regard to claims 1 and 10, Blair teaches a safety circuit (fig. 2) for an electric motor (10) including at least one power input (L1), at least one motor winding (T1) and an input ground (26).

Blair teaches the claimed invention except for the safety circuit comprising a relay coupled to the at least one power input and the input ground; and

at least one transistor switch coupled to the relay, the at least one power input and the at least one motor winding.

Quantz teaches a relay (19) coupled to power input (24), and ground (fig. 2), at least one transistor switch (42) coupled to the relay (fig. 2). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claims 2, and 11, Blair teaches the relay comprises an inductor that is inductively coupled to the at least one switch (fig. 2).

With regard to claims 3, and 12, Quantz teaches the relay comprises a resistor (60) that is coupled to the at least one transistor switch (42). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

Claims 4-6, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair, US 3,656,136 in view of Quantz, US 5,343,351.

With regard to claims 7 and 14, Blair teaches a safety circuit for an electric motor (10) including at least first and second power inputs (L1, L2), at least first and second motor windings (T1, T2) and an input ground (26).

Blair teaches the claimed invention except for the safety circuit comprising a relay coupled to the at least one power input and the input ground; and at least first and

second transistor switches coupled to the relay, the first transistor switch being coupled the first power input and the first motor winding, and the second transistor switch being coupled to the second power input and the second motor winding.

Quantz teaches a relay (19) coupled to power input (24), and ground (fig. 2). Quantz teaches a first and second transistor switches (34, 42) coupled to the relay (fig. 2). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claims 5, and 14, Quantz teaches the relay comprises an inductor that is inductively coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claims 6, and 15, Quantz teaches the relay comprises a resistor that is coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair, US 3,656,136 in view of Quantz, US 5,343,351.

With regard to claim 7, Blair teaches an electric motor (10) comprising:

- a. at least first and second power inputs (L1, L2);
- b. at least first and second motor windings (T1, T2);
- c. an input ground (26); and

Blair teaches the claimed invention except for a safety circuit comprising: a relay coupled to the at least two power inputs and the input ground; and at least first and second transistor switches coupled to the relay, the first transistor switch being coupled the first power input and the first motor winding, and the second transistor switch being coupled to the second power input and the second motor winding.

Quantz teaches these features (fig. 2). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 8, Quantz teaches the relay comprises an inductor that is inductively coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 9, Quantz teaches the relay comprises a resistor that is coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing

motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malcosky, US 3,809,506 in view of Blair, and Quantz.

With regard to claim 16, Malcosky teaches a pump (10) comprising an electric motor (12).

Malcosky teaches the claimed invention except for at least first and second power inputs; at least first and second motor windings; an input ground; and a safety circuit comprising: a relay coupled to the at least two power inputs and the input ground; and at least first and second transistor switches coupled to the relay, the first transistor switch being coupled the first power input and the first motor winding, and the second transistor switch being coupled to the second power input and the second motor winding.

Blair teaches at least first and second power inputs (L1, L2); at least first and second motor windings (T1, T2); an input ground (26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Malcosky with the teachings of Blair for the purpose of providing some type of device in combination with such industrial type motors capable of indicating whether or not the motor was in a safe condition before the main power source is connected to the motor (1: 24-27).

Quantz teaches the features of the safety circuit (fig. 2). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 8, Quantz teaches the relay comprises an inductor that is inductively coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 9, Quantz teaches the relay comprises a resistor that is coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Nos. 6,169,648, and 4,028,736 disclose similar electronic motor protection circuits.

Communication with the PTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Polk whose telephone number is 703-308-6257. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

November 18, 2002

Sharon Polk

Patent Examiner – Art Unit 2836



BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
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